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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,188	03/28/2002	Susan Rebecca Cikanek	200-0529 CLH	4766
28787	7590	05/21/2004	EXAMINER	
DYKEMA GOSSETT PLLC 39577 WOODWARD AVENUE SUITE 300 BLOOMFIELD HILLS, MI 48304			CAMPBELL, KELLY E	
			ART UNIT	PAPER NUMBER
			3618	

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/063,188

Applicant(s)

CIKANEK ET AL

Examiner

Kelly E Campbell

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15, 16 and 30 is/are allowed.
- 6) ☒ Claim(s) 1-6, 13-14, 17, 29 is/are rejected.
- 7) ☒ Claim(s) 7-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6,13-14,17-22 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank (US 6,054,844) in view of Severinsky et al (US 6,554,088).

Frank teaches a method of powering a hybrid electric vehicle with an electric motor (24) and an internal combustion engine (10);

powering the vehicle with by an electric motor (24) up to a first vehicle operational parameter level (Ao,Se Min), see Column 6, lines 49-56, see lines Column 9, lines 55-67;

powering the vehicle with an internal combustion engine (10) beyond the first vehicle parameter level (Ao,Se Min), see Column 9, lines 55-67;

wherein the first parameter level is a function of power demand, see Column9, lines 55-62;

determining a torque level of the motor (24) at the first vehicle operational parameter level (Ao) and further determining an accelerator pedal travel first position at the first vehicle operator parameter level (Ao), see Column 9, line s 24-44;

a controller (30) includes a torque sensing means , see for determining a torque level of the motor, see Column 4, lines 35-41, and further includes an accelerator pedal

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travel sensing means, for determining positions of the accelerator pedal, see Column 6, lines 8-20;

and fixing a predefined maximum engine torsional output to a predefined accelerator pedal travel second position (A₀,SE), see Column 9, lines 30-33 and 55-58;

the controller (30) for scaling the accelerator pedal travel by a first linear predefined functional relationship from the accelerator pedal travel first position (A₀) to the accelerator pedal travel second position (A₁), see Column 10, lines 18-32 and 39-49;

wherein the motor(24) and the engine (10) power a common drive axle (22) of the vehicle, see Figure 6.

Frank does not teach a hybrid vehicle fixing a predefined percentage of a maximum torsional output or a predefined pedal position being within an approximate range.

Severinsky teaches hybrid vehicle comprising a motor and internal combustion engine wherein the engine maximum output torque is constrained to a predefined percentage range of efficient operation, see Column 38, lines 58-65.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the hybrid vehicle with pedal control means to include a predefined percentage range for the maximum engine torsional output as disclosed by Severinsky et al, since the typical IC engine is operated with reasonable efficiency 30-90% of its maximum power, as most vehicles are only require substantial power under

conditions of extreme acceleration and are vastly overpowered at most times, thus fuel inefficient.

With regards to claims 3-6, Severinsky defines the predefined percentage of maximum engine torsional output as being 30% and 100% of the engine maximum torque output, thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the specific predefined percentage of maximum output and the accelerator pedal position to be within a specific range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*. 105 USPQ 233.

Response to Arguments

Applicant's arguments filed 3/28/04 have been fully considered but they are not persuasive. Applicant's arguments that the reference Frank ('844) "is quite different" than applicant's invention have been considered. In the Frank reference, the electric motor torque overrides the engine torque force wherein Applicant's invention works differently. In Applicant's invention, the electric motor is cut off when the switch is made to the internal combustion engine and the electric motor does not again contribute to the torque demand until vehicle has reached its second level, which is a predetermined percentage of the maximum engine torque output.

However, applicant's arguments are substantially more specific than the claim limitations. Applicant's arguments that the references fail to teach certain features of the

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applicant's invention are noted, however the features upon which the applicant relies(i.e. the electric motor cutoff when the switch is made to internal combustion engine) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Vans Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Allowable Subject Matter

Claims 15-16 and 30 is allowed.

Claims 7-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 23-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not specify:

a hybrid electric vehicle including a maximum available motor torque determined on an instantaneous basis wherein when the accelerator pedal is moved beyond the accelerator pedal travel second position, the motor supplies boost torque and the motor

is scaled by a second predefined function relationship between the accelerator pedal travel second position and a, maximum accelerator travel position;

or determining an accelerator pedal third position when the vehicle returns below the first vehicle operational parameter level and determining instantaneous maximum torque level of the motor and scaling the accelerator pedal from the travel third opposition to a fixed third predefined percentage.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly E Campbell whose telephone number is (703) 605-4264. The examiner can normally be reached on 9:00-5:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Johnson can be reached on (703) 308-0885. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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5/17/04